

Atty. Dkt. No. 39078-0005
Title: INTERFERING RNA
MOLECULES
Inventor: Klaus GIESE
Filed: August 5, 2003

Fig. 1

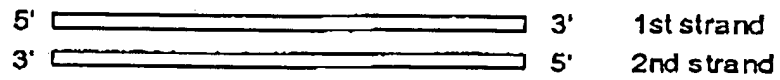


Fig. 2

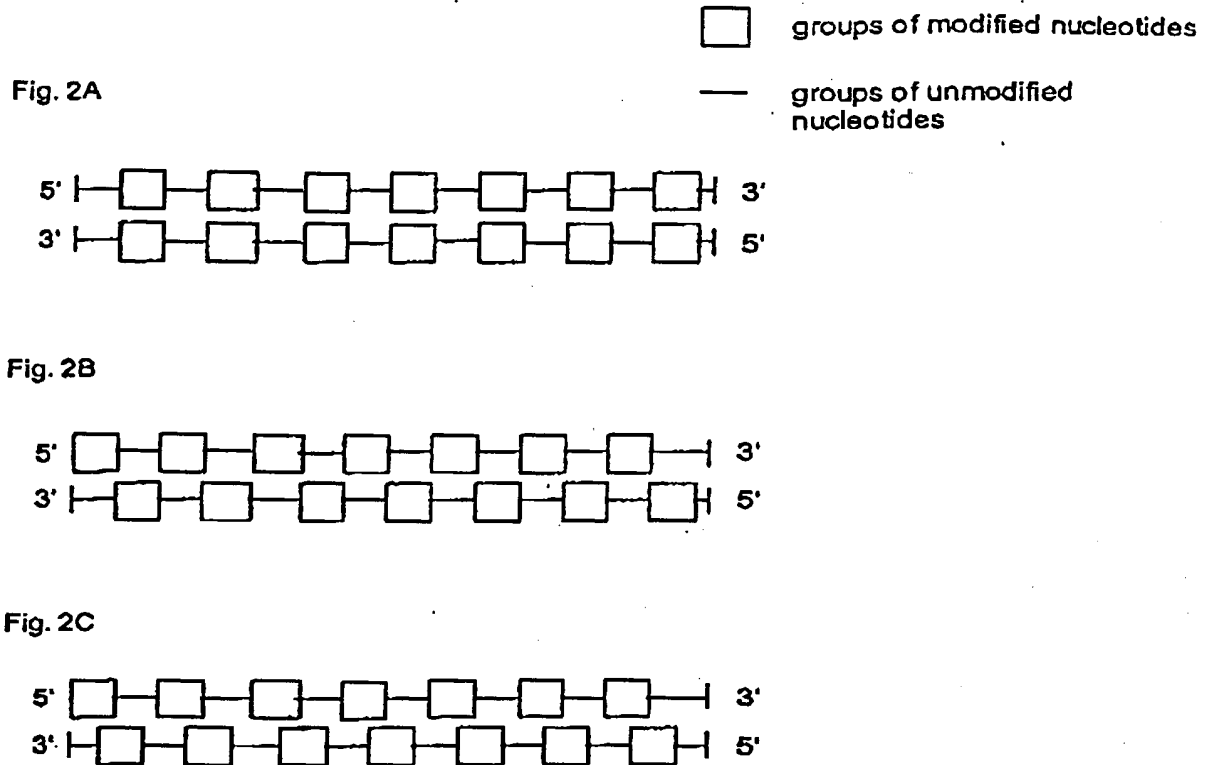
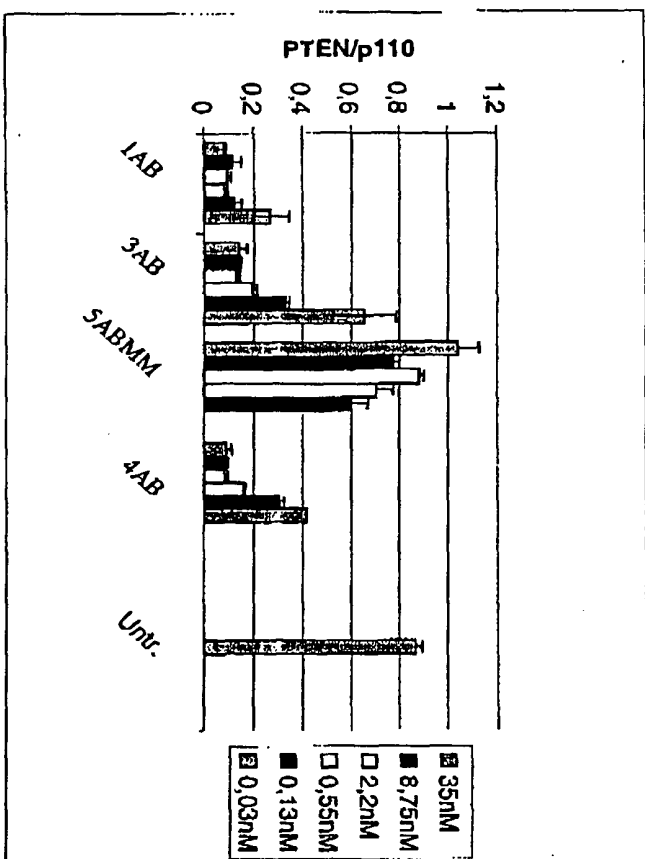


Fig.3



3A

ONLY RNA WITH 2 DEOXY AT EACH END
 1A 5'- cuccuunuguuucgcuacg-TT
 1B 3'-TT-gaggaaacaagacgaugc

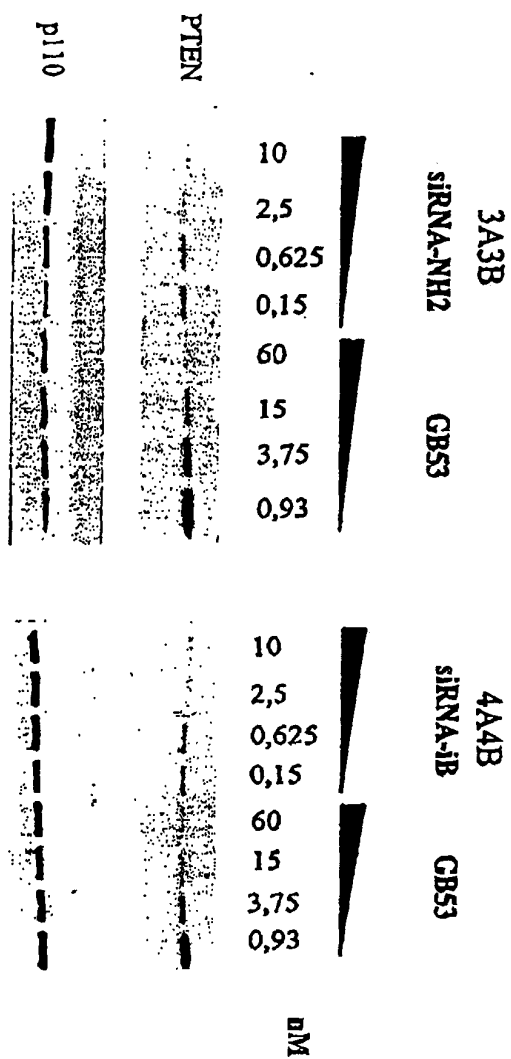
ONLY RNA WITH NH2 GROUPS AT EACH 3' END AND 2 DEOXY
 3A 5'- cuccuunuguuucgcuacg-TT-NH2
 3B 3'-NH2-TT-gaggaaacaagacgaugc

ONLY RNA WITH INVERTED ABAS-C AND 2 TT
 4. 16153-1B (1B at the 3' ends)
 4A 5'- cuccuunuguuucgcuacg-TT-1B
 4B 3'-1B-TT-gaggaaacaagacgaugc

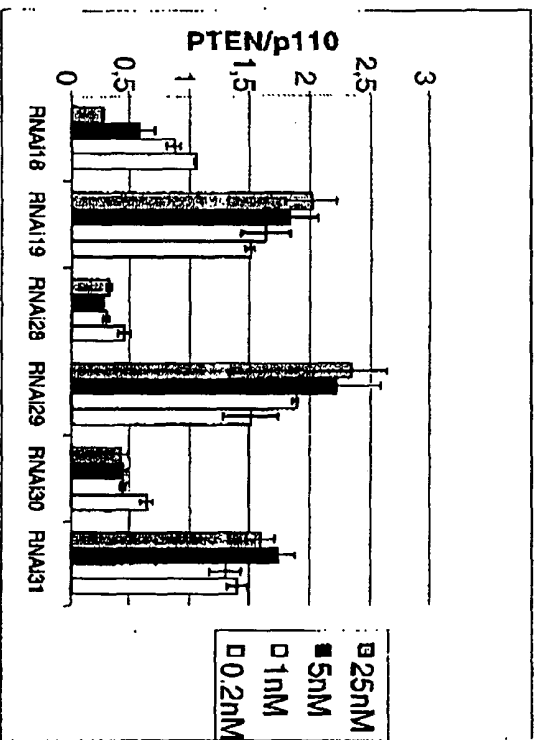
ONLY RNA WITH 2 DEOXY AT EACH END
 5A 5'- cuccuunuguuucgcuacg-TT
 5B 3'-TT-gaggaaacaagacgaugc

3B

Fig. 3C



4A

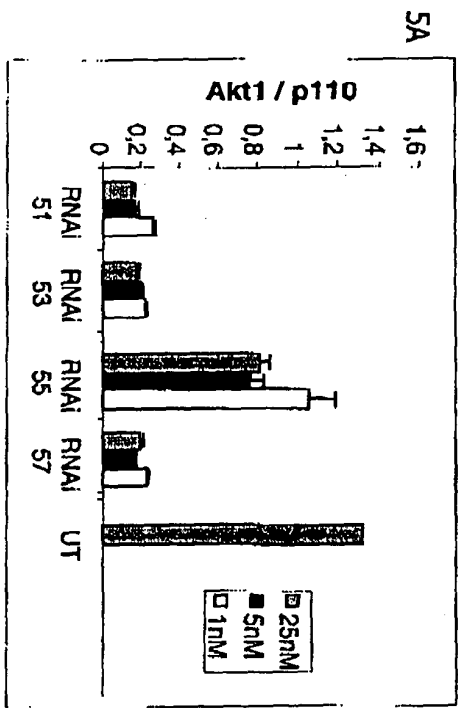


4B

18A	5'-cuccuuuuguuucugcuaacg-3'
18B	3'-TT-gaggaaaacaagacgaugc
19A (NM)	5'-cuccuuuucuuugucacag-3'
19B (NM)	3'-TT-gaguuuaaagaacacacgagugc
28A	5'-cuccuuuuguuucugcuaacg-3'
28B	3'-gaggaaaacaagacgaugc
29A (NM)	5'-cuccuuuucuuugucacag-3'
29B (NM)	3'-gaguuuaaagaacacacgagugc
30A	5'-TT-cuccuuuuguuucugcuaacg-3'
30B	3'-gaggaaaacaagacgaugc-3'
31A (NM)	5'-TT-cuccuuuucuuugucacag-3'
31B (NM)	3'-gaguuuaaagaacacacgagugc-3'

Fig. 4

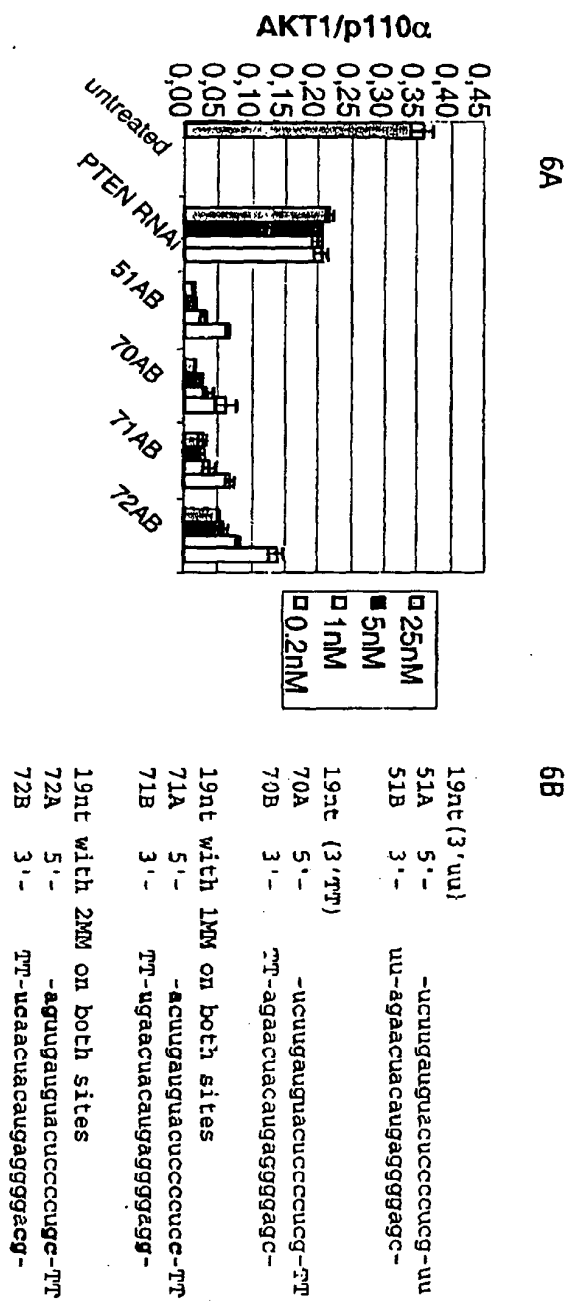
Fig. 5



5B

51A	5'-	-ucuuugauguaucucccucg-uu	19nt 3'uu
51B	3'-	uu-agaacuaacaugagggaagc-	
53A	5'-	-ucuuugauguaucucccucg-uu	19nt 3'seq. specific RNA
53B	3'-	cc-agaacuaacaugagggaagc-	
55A	5'-	-cuugauguaucucccucg-gu	17nt 3'seq. specific RNA
55B	3'-	ca-gaacuaacaugagggaagc-	
57A	5'-	-ucuuugauguaucucccucg-7T	19nt 3'seq. specific DNA
57B	3'-	CC-agaacuaacaugagggaagc-	

Fig. 6



A

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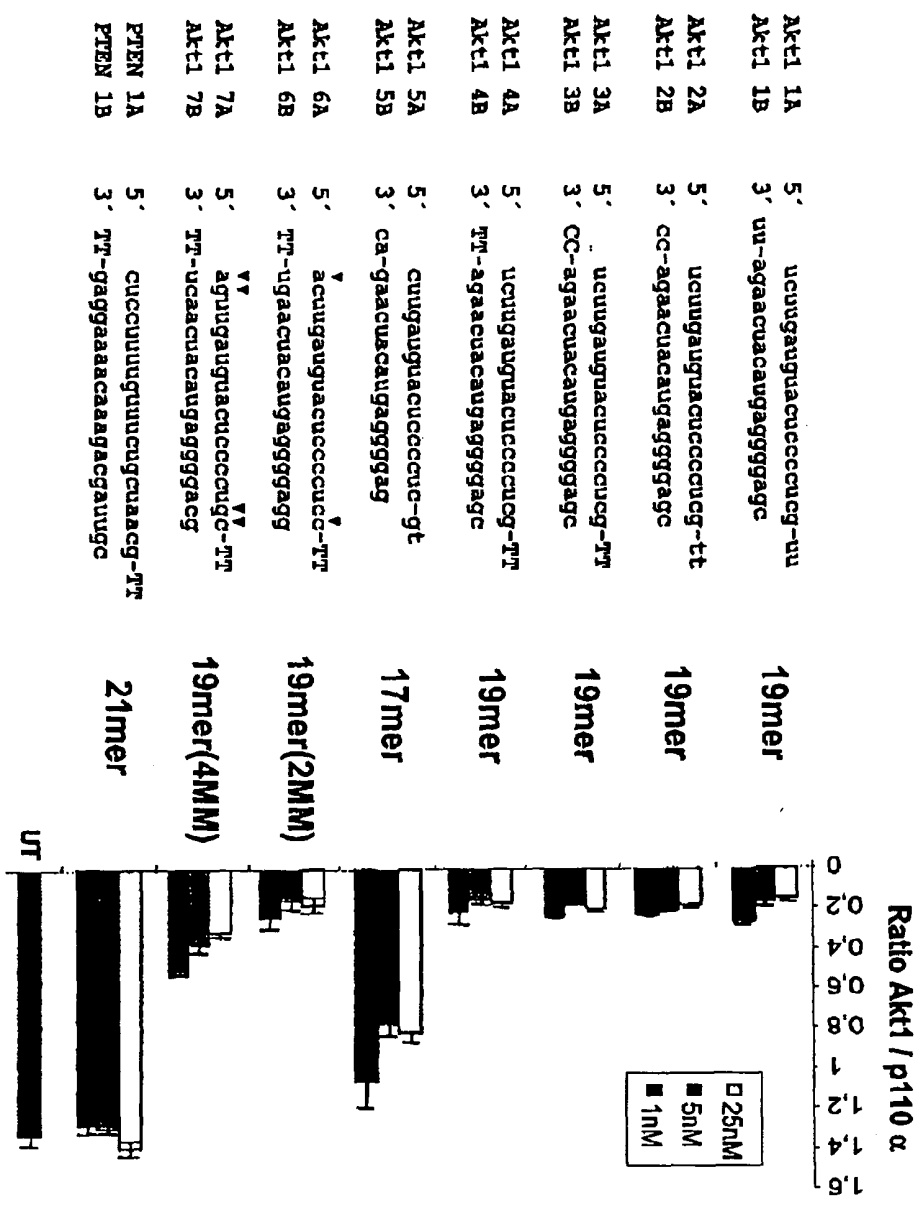
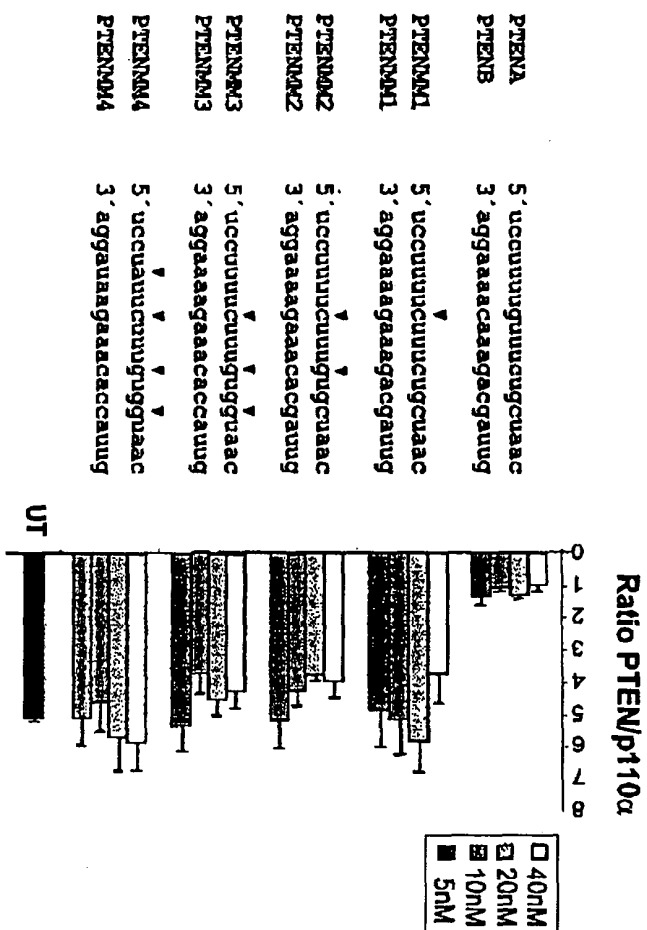


Fig. 7

B



C

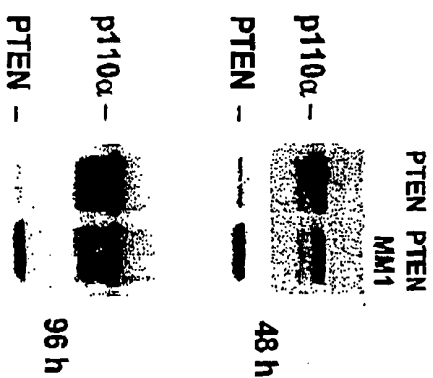


Fig. 7

Fig. 8'

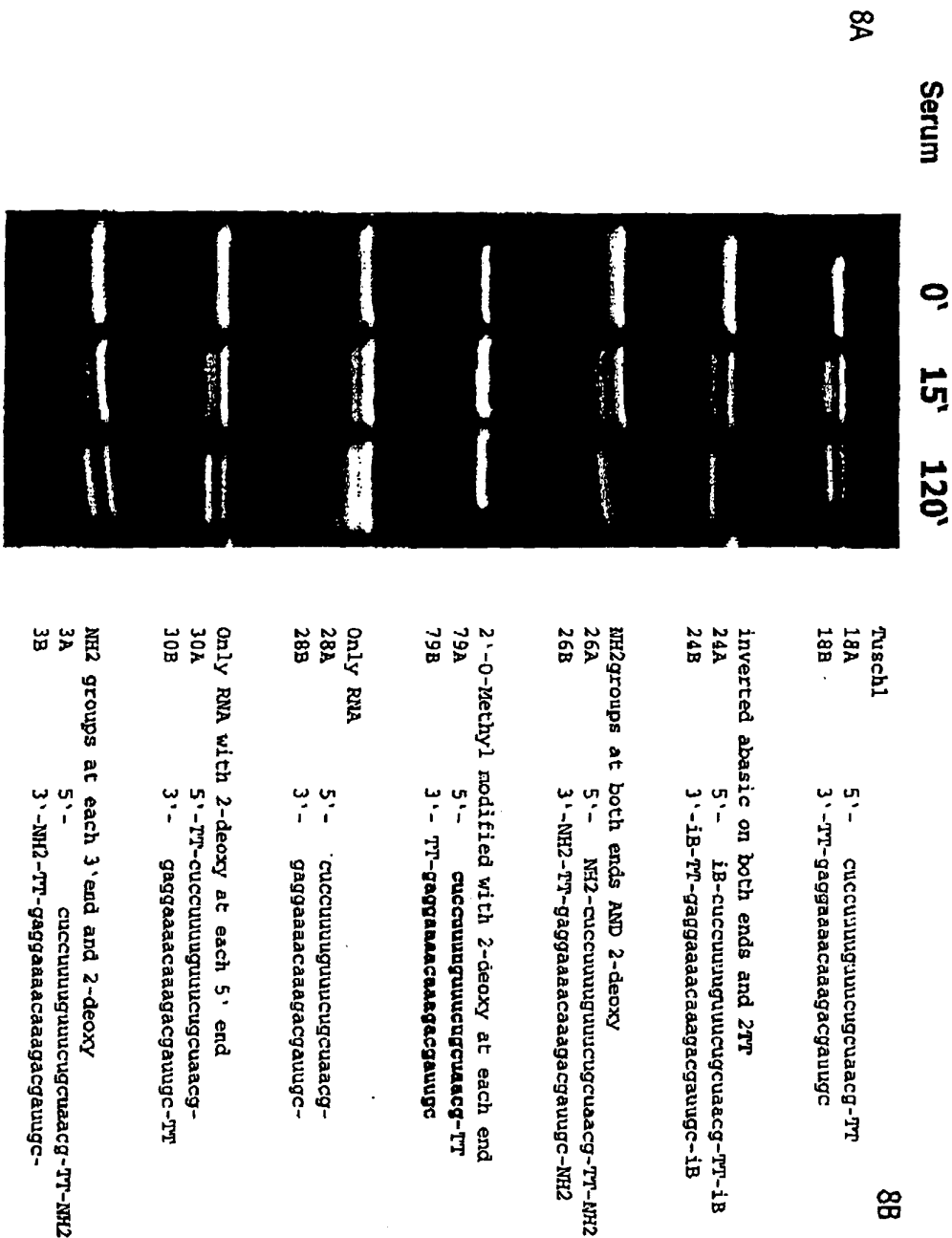
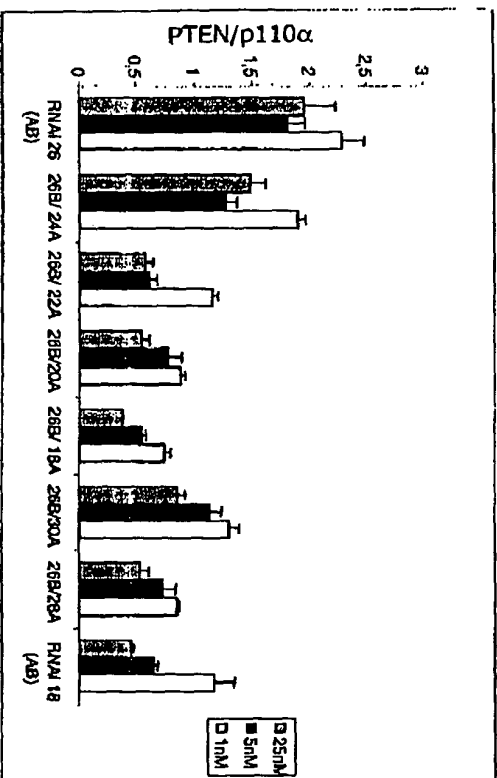


Fig. 9

9A



9B

26A	5'-NH2-cuccuauuugucgcuacg-3'	TT-NH2
26B	3'-NH2-TT-gaggaacaacagacgauugc-3'	NH2
24A	5'-NH2-cuccuauuugucgcuacg-3'	TT-1B
26B	3'-NH2-TT-gaggaacaacagacgauugc-3'	NH2
22A	5'-cuccuauuugucgcuacg-3'	TT-1B
26B	3'-NH2-TT-gaggaacaacagacgauugc-3'	NH2
20A	5'-cuccuauuugucgcuacg-3'	TT-NH2
26B	3'-NH2-TT-gaggaacaacagacgauugc-3'	NH2
18A	5'-cuccuauuugucgcuacg-3'	TT
26B	3'-NH2-TT-gaggaacaacagacgauugc-3'	NH2
30A	5'-TT-cuccuauuugucgcuacg-3'	
26B	3'-NH2-TT-gaggaacaacagacgauugc-3'	NH2
28A	5'-cuccuauuugucgcuacg-3'	
26B	3'-NH2-TT-gaggaacaacagacgauugc-3'	NH2
18A	5'-cuccuauuugucgcuacg-3'	TT
18B	3'-TT-gaggaacaacagacgauugc-3'	

9C

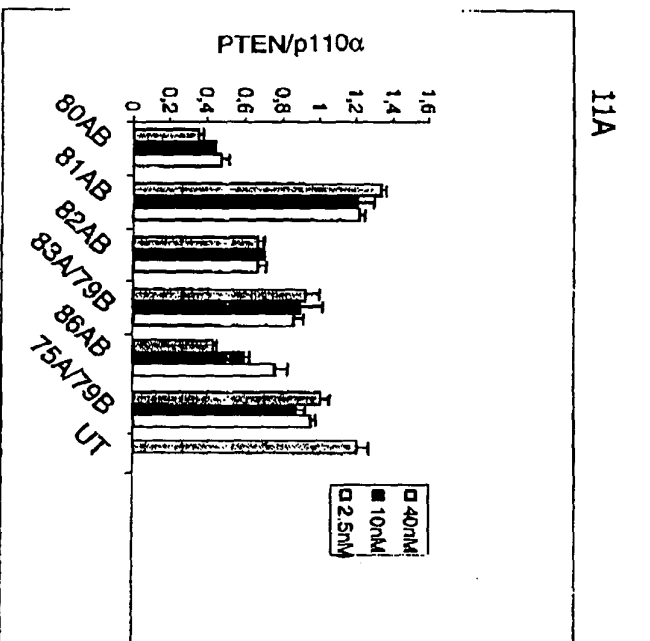
functional

functional

functional

not functional

Fig. 11



11C

RNA Bold Italics represents 2'-O-methyl		
80A	5'-	cuccuuuuuuuuucugcuacg-
80B	3'-	-gaggaaaacaagacgaugc-
81A	5'-	cuccuuuuuuuuucugcuacg-
81B	3'-	-gaggaaaacaagacgaugc-
82A	5'-	cuccuuuuuuuuucugcuacg-
82B	3'-	-gaggaaaacaagacgaugc-
83A	5'-	cuccuuuuuuuuucugcuacg-
79B	3'-	-gaggaaaacaagacgaugc-
86A	5'-	cuccuuuuuuuuucugcuacg-
86B	3'-	-gaggaaaacaagacgaugc-
75A	5'-	cuccuuuuuuuuucugcuacg-
79B	3'-	-gaggaaaacaagacgaugc-

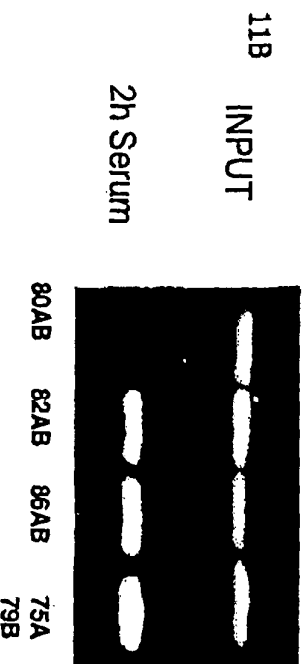


Fig. 12

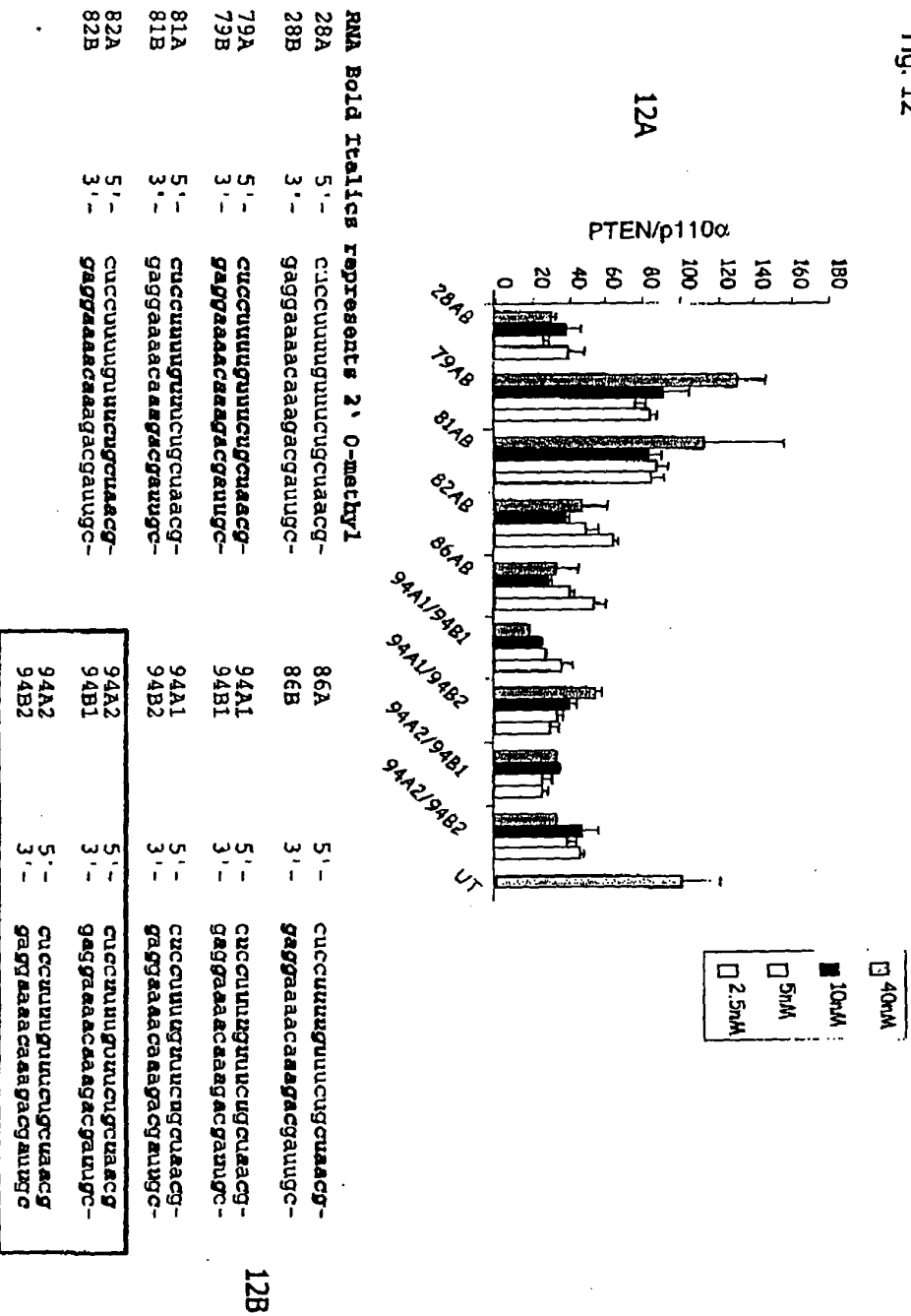


Fig. 12

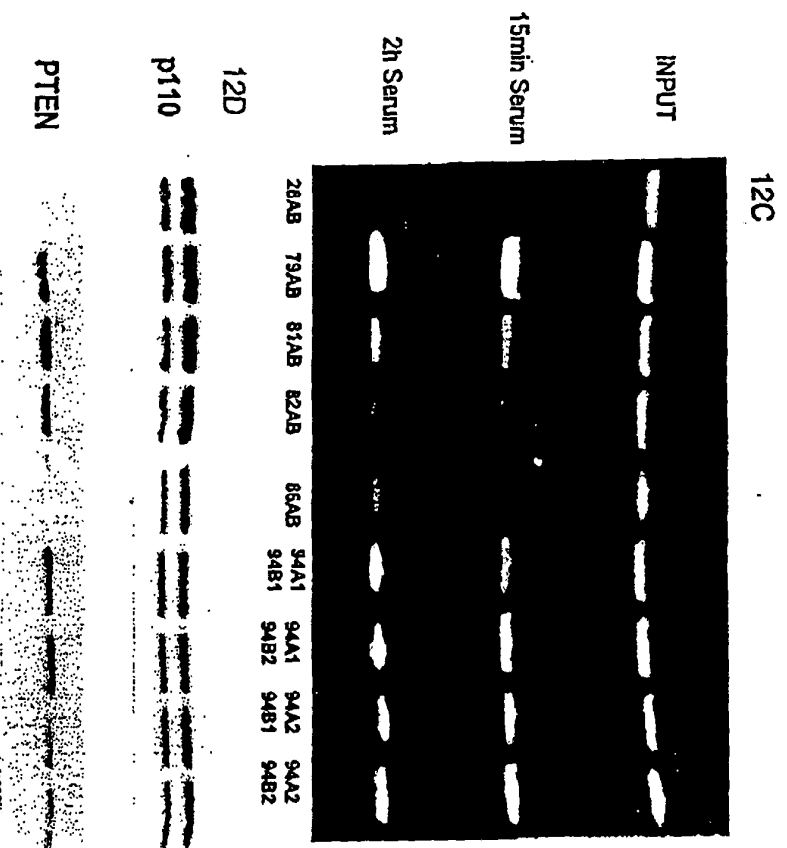


Fig. 13

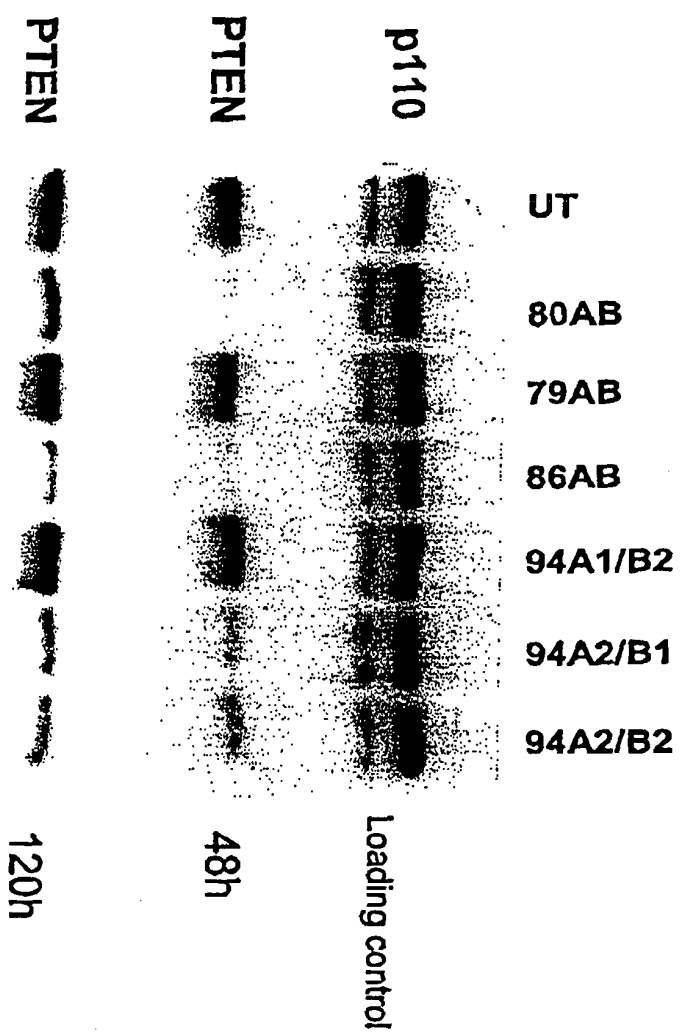
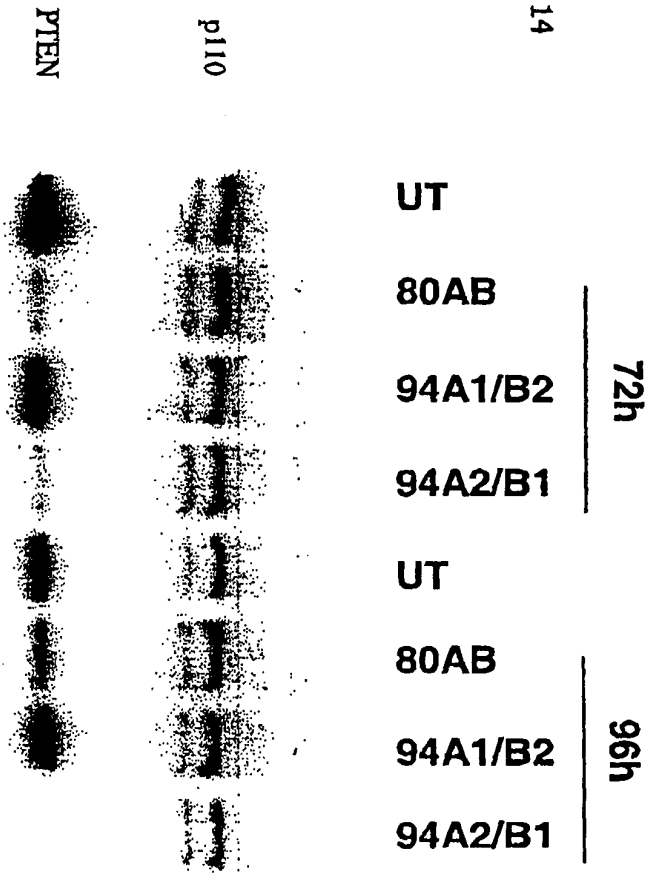


Fig. 14



A

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 Ratio PTEN/p110α

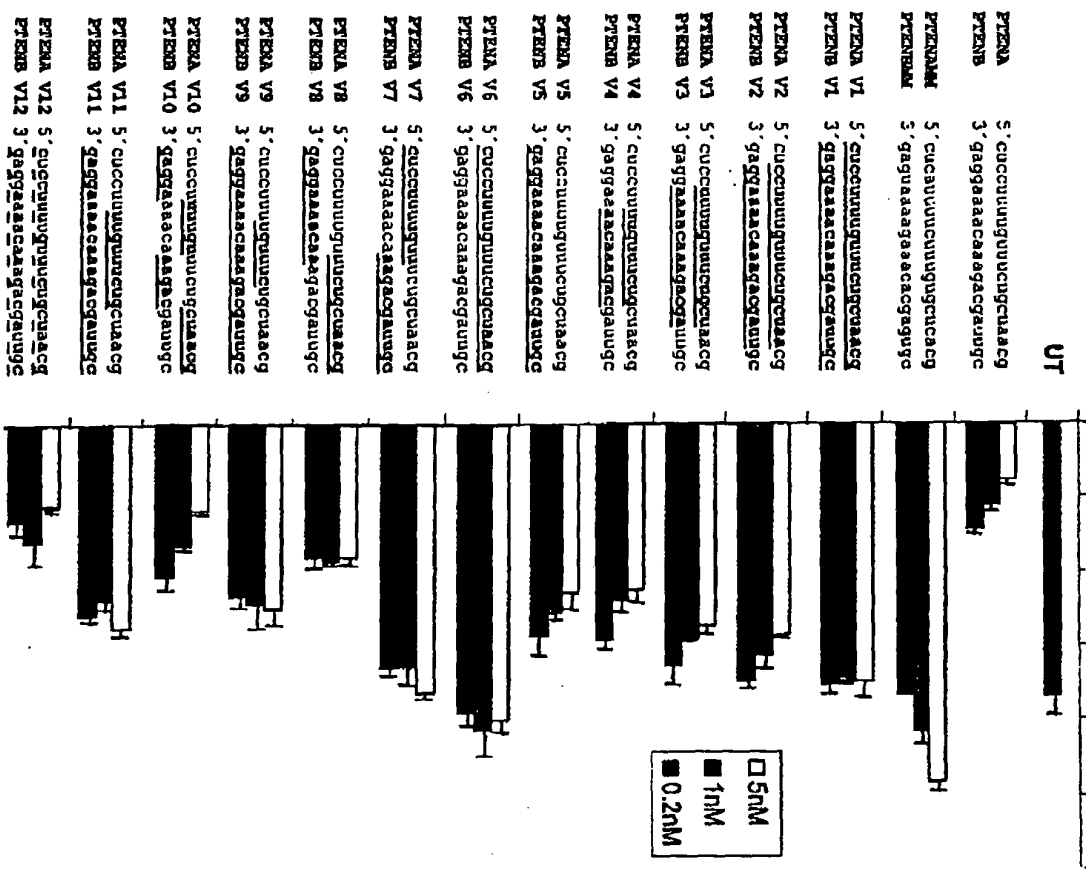


Fig. 15

Inventor: Klaus GIESE
 Filed: August 5, 2003

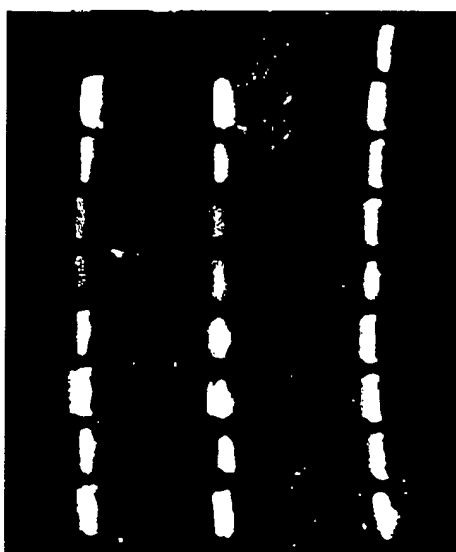
B

PTENA 5' cuccuunugunucugcuacg
 PTENB 3' gaggaacacaaagacgaunugc
 PTENA V1 5' cuccuunugunucugcuacg
 PTENB V1 3' gaggaacacaaagacgaunugc
 PTENA V7 5' cuccuunugunucugcuacg
 PTENB V7 3' gaggaacacaaagacgaunugc
 PTENA V8 5' cuccuunugunucugcuacg
 PTENB V8 3' gaggaacacaaagacgaunugc
 PTENA V10 5' cuccuunugunucugcuacg
 PTENB V10 3' gaggaacacaaagacgaunugc
 PTENA V13 5' cuccuunugunucugcuacg
 PTENB V13 3' gaggaacacaaagacgaunugc
 PTENA V14 5' cuccuunugunucugcuacg
 PTENB V14 3' gaggaacacaaagacgaunugc
 PTENA V15 5' cuccuunugunucugcuacg
 PTENB V15 3' gaggaacacaaagacgaunugc
 PTENA V12 5' cuccuunugunucugcuacg
 PTENB V12 3' gaggaacacaaagacgaunugc

INPUT

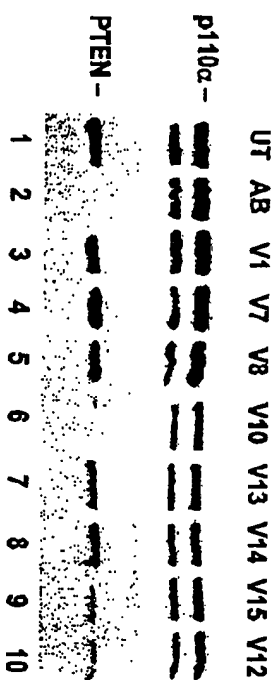
15min Serum

2h Serum



AB V1 V7 V8 V10 V13 V14 V15 V12

C



D

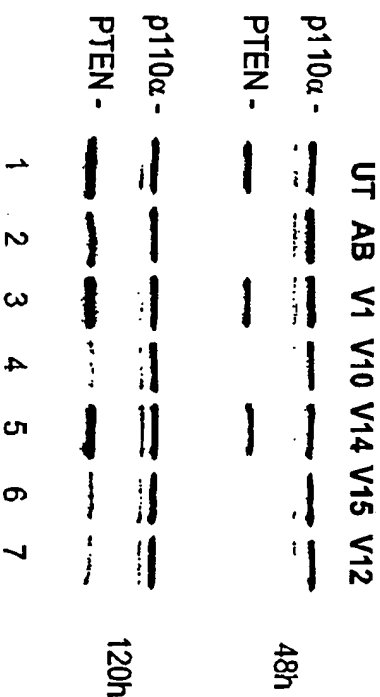
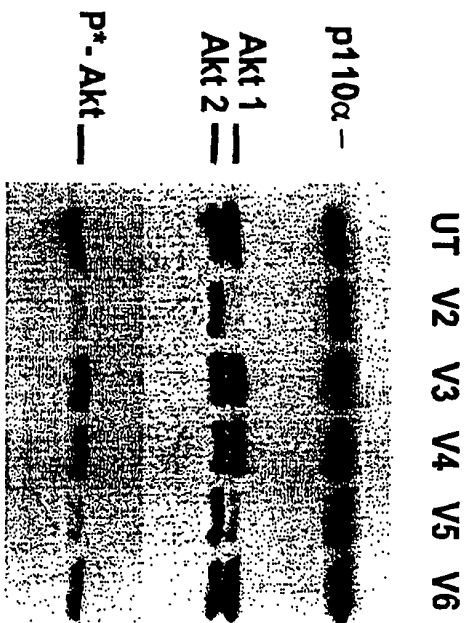


Fig. 15

A

Akt1A V1	5' ucuuugaaugacaccccccucg-3'
Akt1B V1	3'-tt-aggacacacacagaggggagac
Akt1A V2	5' ucuuugaaugacaccccccucg
Akt1B V2	3' agaacacacacacagaggggagac
Akt1A V3	5' ucuuugaaugacaccccccucg
Akt1B V3	3' agaacacacacacagaggggagac
Akt1A V4	5' ucuuugaaugacaccccccucg
Akt1B V4	3' agaacacacacacagaggggagac
Akt1A V5	5' ucuuugaaugacaccccccucg
Akt1B V5	3' agaacacacacacagaggggagac
Akt1A V6	5' ucuuugaaugacaccccccucg
Akt1B V6	3' agaacacacacacagaggggagac



B

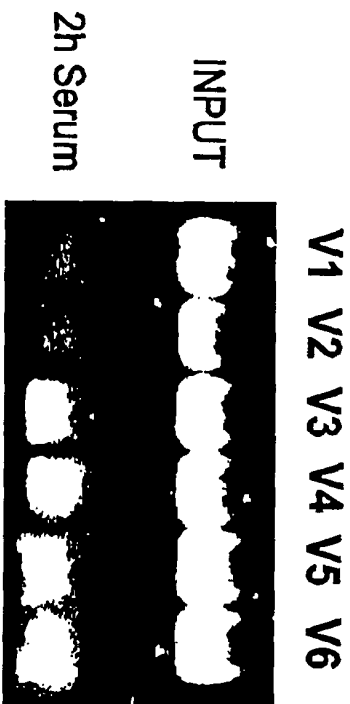


Fig. 16

C

p110β V2	5' aatnccaagugnucalnncc
p110β V2	3' unaaugugucacacaaaguaagug
p110β V3	5' aatnccaagugnucalnncc
p110β V3	3' unaaugugucacacaaaguaagug
p110β V4	5' aatnccaagugnucalnncc
p110β V4	3' unaaugugucacacaaaguaagug
p110β V5	5' aatnccaagugnucalnncc
p110β V5	3' unaaugugucacacaaaguaagug
p110β V6	5' aatnccaagugnucalnncc
p110β V6	3' unaaugugucacacaaaguaagug

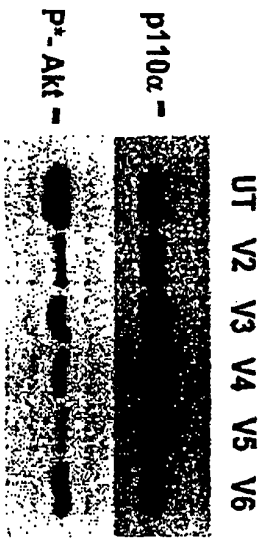


Fig. 16

Fig.17

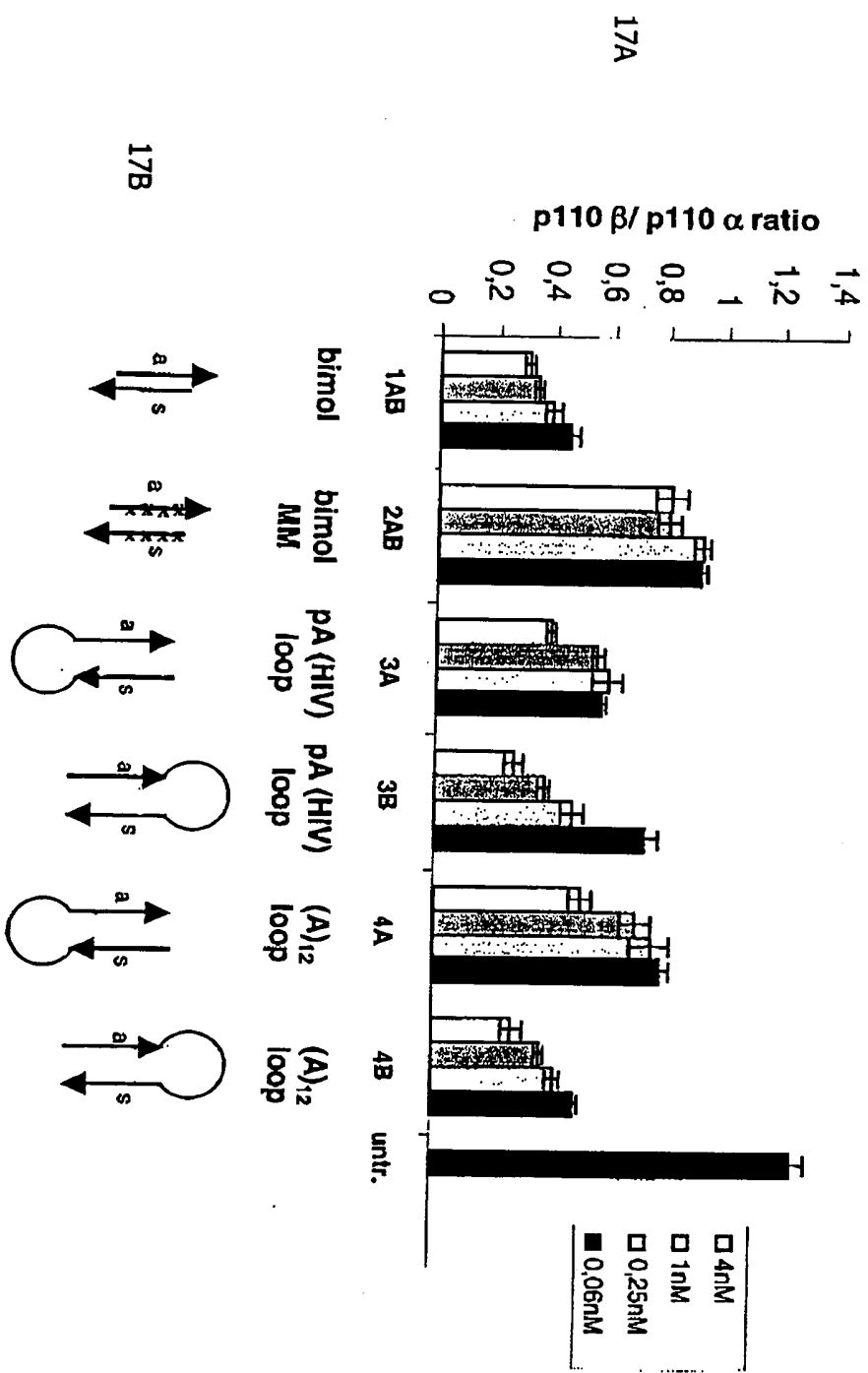
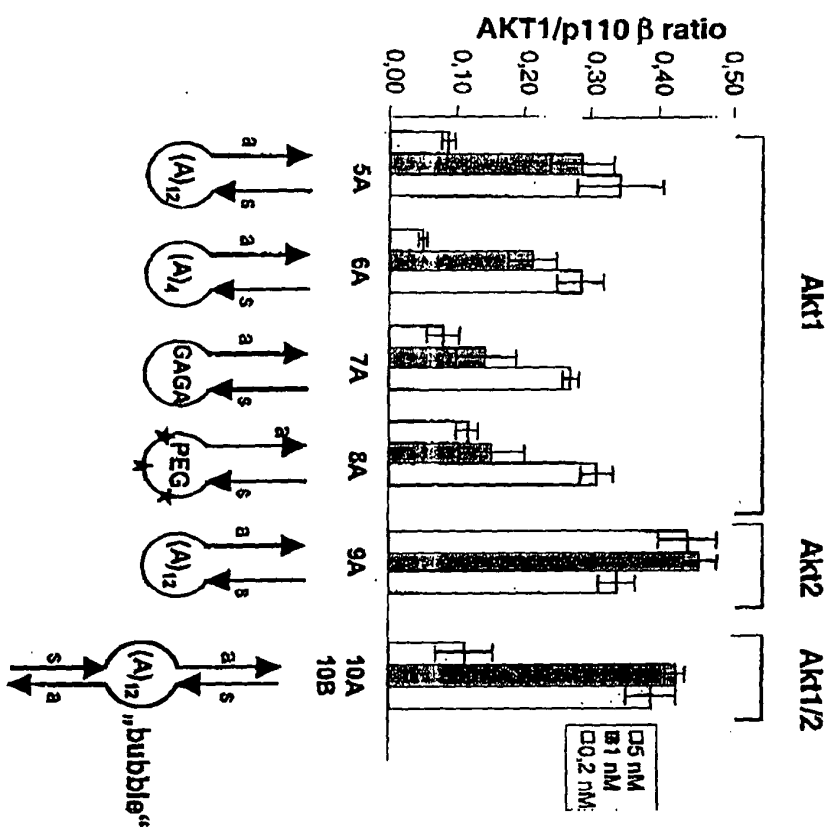
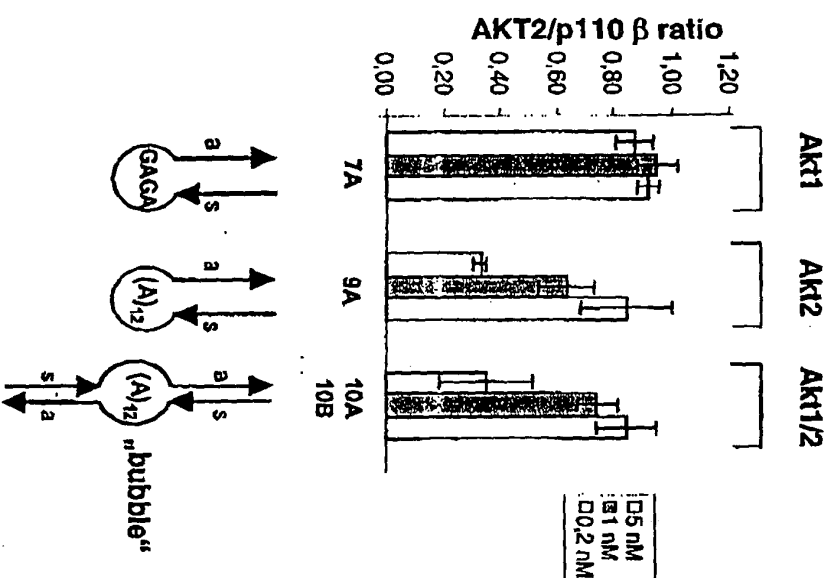


Fig. 18

18A



18B

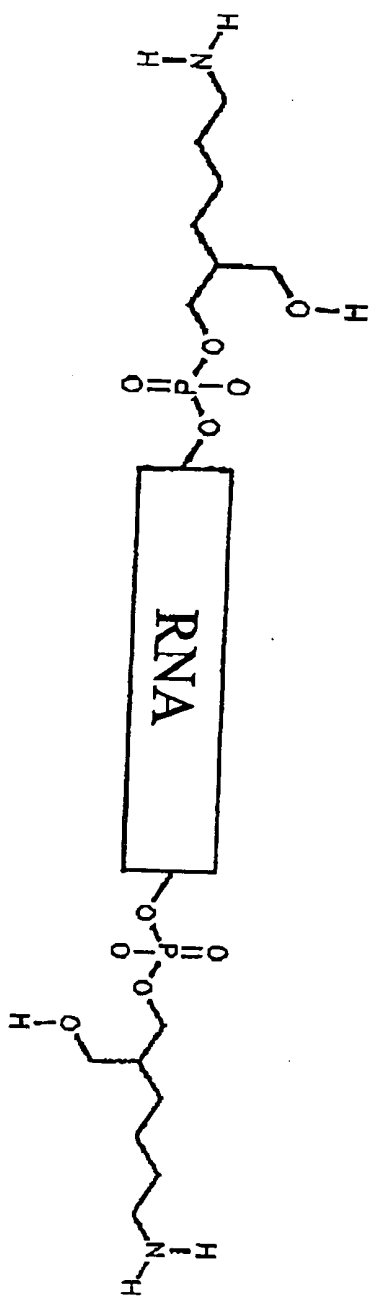


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18C



A



B

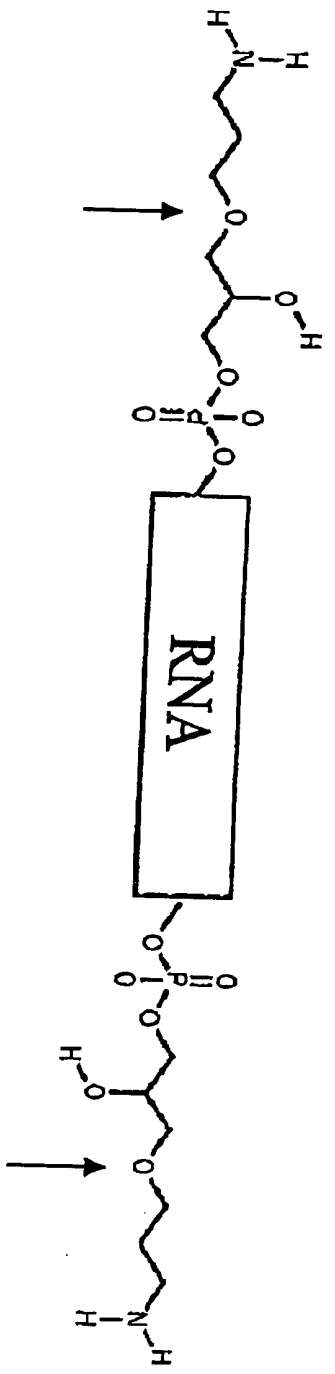


Fig. 19